

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeffrey R. Kurin on 10/13/2010.

The application has been amended as follows:

10. (Proposed Amendment) A system comprising:
 - a coefficient interpolator;
 - a filter selection register;
 - a memory coupled to the coefficient interpolator; and
 - a sample rate estimator configured to estimate a sample rate of an audio input signal;
 - a convolution engine coupled to the coefficient interpolator;wherein the memory is configured to store multiple independent sets of filter coefficients, wherein each set of filter coefficients defines a different polyphase filter function, wherein each of the different polyphase filter functions would result in at least some modifying of a signal if the signal were filtered in accordance with the polyphase filter function, and wherein each of the different polyphase filter functions would result in modifying of a signal in a different manner than the other polyphase filter functions; and wherein the coefficient interpolator is configured to interpolate a selected single one of the independent sets of filter coefficients, in dependence on the

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estimated sample rate of the audio input signal, to thereby produce interpolated polyphase filter coefficients; and
wherein the selected single of one of the independent sets of filter coefficients is selected based on contents of the filter selection register, independent of the audio input signal received, and independent of the filtered audio output signal produced; and
wherein the same single one of the sets of filter coefficients selected is used to produce the filtered audio output signal; and
wherein the convolution engine is configured to convolve the audio input signal with the produced interpolated polyphase coefficients corresponding to the selected single one of the sets of filter coefficients to produce the filtered audio output signal that differs from the audio input signal regardless of which one of the sets of filter coefficients is selected.

11. (Canceled)

12. (Proposed Amendment) The system of claim [[11]] 10, wherein:
the convolution engine is implemented in a sample rate converter of a pulse width modulation (PWM) amplifier.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest wherein the selected single of one of the independent sets of filter coefficients is selected based on contents of the filter selection register, independent of the audio input signal received, and independent of the filtered audio output signal produced; and—wherein the same single one of the

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sets of filter coefficients selected is used to produce the filtered audio output signal as recited in independent claims 1, 10, and 22.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL YAARY whose telephone number is (571)270-1249. The examiner can normally be reached on Mon-Fri 9 a.m.-5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. Y./

Examiner, Art Unit 2193

/Lewis A. Bullock, Jr./

Supervisory Patent Examiner, Art Unit 2193